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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,286	08/17/2001	Steven B. McGowan	884.516US1	4742

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EXAMINER

HASHEM, LISA

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,286

Applicant(s)

MCGOWAN, STEVEN B.

Examiner

Lisa Hashem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 34-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-6 and 37-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,455,823 by Noreen et al, hereinafter Noreen.

Regarding claim 1, Noreen discloses a sound generation device (Fig. 2) comprising:
an audio source to generate an audio signal (Fig. 2, 217) (col. 9, lines 41-59);
a radio frequency (RF) transmitter (Fig. 2, 211), coupled to the audio source (via a data coder and modulator; Fig. 2, 224),
to transmit an RF carrier signal modulated with the audio signal, the RF carrier signal having a specific carrier frequency (col. 9, lines 41-59; col. 12, line 67 – col. 13, line 39; col. 16, lines 47-67);
and a channel locator controller (Fig. 2, 204) to identify an optimum (e.g. favorable, available) carrier frequency (col. 16, lines 52-61),
wherein the channel locator controller includes a stored program digital computer (e.g. non-volatile memory),
the computer to store a database of optimum carrier frequencies arranged by geoposition (col. 8, lines 7-25; col. 12, line 40 – col. 14, line 10; col. 15, line 40 – col. 16, line 9; col. 16, lines 52-61; col. 18, lines 4-32); and

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a geoposition source (e.g. GPS receiver, GPS microchip) coupled to the stored program digital computer to provide a geoposition to the stored program digital computer (col. 4, lines 27-36; col. 13, line 50 p col. 14, line 10; col. 18, lines 4-32; col. 19, line 25 – col. 20, line 14).

Regarding claim 2, the sound generation device recited in claim 1, wherein Noreen further discloses the geoposition source comprises a table or listing stored in one of a programmable read only memory (PROM) device, a cellular phone, a cellular switching center, and an Internet site (col. 18, lines 4-14).

Regarding claim 4, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device further comprises one of a cellular phone (e.g. mobile terminal), a GPS (global position system) receiver, a geoposition programming device, a data entry device, and a programmable read only memory (col. 13, lines 54-59; col. 18, lines 4-14).

Regarding claim 5, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device further comprises:
a channel selection circuit (Fig. 2, 223), coupled to the RF transmitter, to select an optimum carrier frequency on which to transmit the RF carrier signal (col. 16, lines 52-61).

Regarding claim 6, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device comprises equipment from a group comprising an MP3 (Motion Picture Experts Group, Audio Layer 3) player, a compact disk player, a mini-disk player, a micro-disk player, a digital video disk player, a cassette tape player, a radio, a cellular phone, a handheld computer, a portable computer, a television, a video player, a personal digital

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assistant, an electronic musical instrument, an electronic toy, and a wireless microphone (col. 9, lines 10-24).

Regarding claims 37-40, please see the rejections to claims 1 and 4-6 above, to reject the sound generation device in claims 37-40.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen in view of U.S. Patent Application Publication No. 2001/0049262 by Lehtonen.

Regarding claim 3, the sound generation device recited in claim 1, wherein Noreen discloses an RF transmitter (Fig. 2, 211) to transmit a channel selection signal comprising an optimum carrier frequency.

However, Noreen does not disclose an out-of-band transmitter to transmit a channel selection signal comprising an optimum carrier frequency.

Lehtonen discloses a sound generation device (Fig. 3) comprising:
an audio source to generate an audio signal (Fig. 3, 27: MP3 Player) (section 0030, line 1 – section 0031, line 6);
a radio frequency (RF) transmitter (Fig. 3, 22: RF, AER), wirelessly coupled to the audio source, to transmit an RF carrier signal modulated with an audio signal, the RF carrier signal having a specific carrier frequency (section 0035, lines 1-14); and

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a channel locator controller (Fig. 3: BT2) to identify an optimum carrier frequency (e.g. 2.4

GHz), wherein the channel locator controller includes

an out-of-band transmitter (Fig. 3: BT2, ANT2) to transmit a channel selection signal comprising an optimum carrier frequency (section 0032, lines 1-6).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Noreen to include an out-of-band transmitter as taught by Lehtonen. One of ordinary skill in the art would have been lead to make such a modification to provide a sound generation device that includes an additional transmitter to transmit a channel selection signal that can communicate with receivers that can automatically switch to a new transmission frequency of the sound generation device.

5. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen in view of Lehtonen.

Regarding claim 34, Noreen discloses a sound generation device (Fig. 2) comprising:
an audio source to generate an audio signal (Fig. 2, 217) (col. 9, lines 41-59);
a radio frequency (RF) transmitter (Fig. 2, 211), coupled to the audio source (via a data coder and modulator; Fig. 2, 224),
to transmit an RF carrier signal modulated with the audio signal, the RF carrier signal having a specific carrier frequency (col. 9, lines 41-59; col. 12, line 67 – col. 13, line 39; col. 16, lines 47-67);
a channel locator controller (Fig. 2, 204) to identify an available (e.g. at hand, optimum) carrier frequency (col. 16, lines 52-61), wherein the channel locator controller includes
an RF receiver (Fig. 2, 215), coupled to the RF transmitter (Fig. 2, 211),

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to receive signals having different carrier frequencies (col. 9, lines 3-9; col. 9, lines 25-39; col. 10, lines 18-23); and

a channel locator circuit (Fig. 2, 223), coupled to the RF receiver,

to identify a carrier frequency below a minimum signal strength (col. 12, lines 40-61; col. 15, lines 40-55; col. 17, lines 17-57); and

the RF transmitter to transmit a channel selection signal comprising an available carrier frequency (col. 8, lines 7-25; col. 12, line 40 – col. 14, line 10; col. 15, line 40 – col. 16, line 9; col. 16, lines 52-61; col. 18, lines 4-32).

Noreen discloses a RF transmitter to transmit a channel selection signal comprising an available carrier frequency. However, Noreen does not disclose an out-of-band transmitter to transmit a channel selection signal comprising an available carrier frequency.

Lehtonen discloses a sound generation device (Fig. 3) comprising:

an audio source to generate an audio signal (Fig. 3, 27: MP3 Player) (section 0030, line 1 – section 0031, line 6);

a radio frequency (RF) transmitter (Fig. 3, 22: RF, AER), wirelessly coupled to the audio source, to transmit an RF carrier signal modulated with an audio signal, the RF carrier signal having a specific carrier frequency (section 0035, lines 1-14); and

a channel locator controller (Fig. 3: BT2) to identify an optimum carrier frequency (e.g. 2.4 GHz), wherein the channel locator controller includes

an out-of-band transmitter (Fig. 3: BT2, ANT2) to transmit a channel selection signal comprising an optimum carrier frequency (section 0032, lines 1-6).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Noreen to include an out-of-band transmitter as taught by Lehtonen. One of ordinary skill in the art would have been lead to make such a modification to provide a sound generation device that includes an additional transmitter to transmit a channel selection signal that can communicate with receivers that can automatically switch to a new transmission frequency of the sound generation device.

Regarding claims 35 and 36, please see the rejections of the sound generation device in claims 5 and 6 mentioned above, to reject the sound generation device in claims 35 and 36.

Response to Arguments

6. Applicant's arguments filed 10-3-06 have been fully considered but they are not persuasive. Please see all rejection(s) above.

7. In regards to Applicant's remarks that Noreen does not disclose '...a radio frequency (RF) transmitter, coupled to the audio source, to transmit an RF carrier signal modulated with the audio signal, the RF carrier signal having a specific carrier frequency...' and '...a database of optimum carrier frequencies arranged by geoposition...' as in claims 1 and 37 and Noreen in view of Lehtonen does not disclose '...an out-of-band transmitter to transmit a channel selection signal comprising an optimum carrier frequency (as cited in claim 3) or an available carrier frequency (as cited in claim 34)...'. Examiner disagrees. Noreen clearly discloses the RF transmitter (Fig. 2, 211) is coupled to the audio source (Fig. 2, 217) on the communications microchip (Fig. 2, 214) and modulated digital voice signal reads on the claimed the RF transmitter transmits an RF carrier signal modulated with the audio signal (col. 15, lines 61-66), wherein the RF carrier signal uses a specific carrier frequency in response to a transmitter

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frequency command signal from the data processor and controller which is used to select the carrier frequency of the RF transmitter (col. 13, lines 38-39; col. 16, lines 47-66). Noreen clearly discloses look-up tables (e.g. an arranged body of information) or a database that include selectable frequencies or optimum carrier frequencies arranged by geoposition (e.g. geographic position, location) or radio frequency location that the mobile station can have access to (col. 12, lines 26-61). Noreen does not disclose an out-of-band transmitter as cited in claims 3 and 34, that is why this is 103(a) rejection. Lehtonen clearly discloses an out-of-band transmitter (Fig. 3: ANT2, BT2) to transmit a channel selection signal or information comprising an optimum carrier frequency (as cited in claim 3) or an available carrier frequency (as cited in claim 34), wherein the frequencies should be in the 2.4 GHz frequency range in accordance with the Bluetooth protocol (section 0032) and data is only sent within that range via the transmitter.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

10. Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communications intended for entry)

Or call:

(571) 272-2600 (for customer service assistance)

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (571) 272-7542. The examiner can normally be reached on M-F 8:30-5:30.

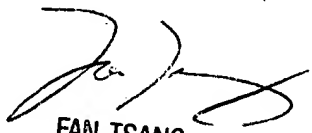
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lh

December 7, 2006



FAN TSANG
SUPERVISORY PATENT EXAMINER
EBC CENTER 2600